



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/482,724	01/13/2000	Robert J. Barsotti	PT0026CIPUS	7393

7590

01/09/2006

CHARLES E. KRUKIEL  
E.I. DU PONT DE NEMOURS AND COMPANY  
LEGAL-PATENTS  
WILMINGTON, DE 19898

EXAMINER
----------

MIGGINS, MICHAEL C

ART UNIT	PAPER NUMBER
----------	--------------

1772

DATE MAILED: 01/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/482,724	BARSOTTI ET AL	
	Examiner	Art Unit	
	Michael C. Miggins	1772	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 August 2003.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 9-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>01/13/00, 7/28/00</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election without traverse of group I, claims 1-8 in the reply filed on 8/22/03 is acknowledged.
2. This application contains claims 9-17 are drawn to an invention nonelected with traverse in Paper No. 8/22/03. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.
3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 3 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites "(including melamine formaldehyde with imino functionality, methylol functionality and partially or highly alkoxy methyl functionality)" it is unclear

Art Unit: 1772

what is included or excluded by the claim since it is not clear whether all the functionalities recited in the claim are required or just one. It is suggested applicant change the limitation to a Markush group and remove the parenthesis.

6. The term "partially or highly" in claim 3 is a relative term which renders the claim indefinite. The term "partially or highly" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

7. Claim 5 is indefinite because it recites an open ended range "greater than 150", open ended ranges are indefinite (MPEP 2173).

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 and 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kotani et al. (US 5766751) in view of Barnes et al. (US 5234761) and .

The second layer of claim 6 is optional since the second layer of claim 1 is optional and need not be disclosed by the prior art.

Kotani discloses a polymeric rigid container for foods and beverages (column 17, lines 10-16) which comprises a polymeric substrate shaped to define a container for a food or a beverage (column 16, lines 1-25, column 17, lines 10-16), a first coating layer

Art Unit: 1772

adhered to at least one surface of the polymeric substrate for retarding the transmission of oxygen and carbon dioxide through the substrate (column 8, line 64 through column 10, line 22, column 15, lines 1-33), said first coating layer comprising an organic binder and from 10% up to less than 90% by weight based on the dry weight of the first coating layer (column 12, lines 2-26), of an inorganic laminar mineral selected from montmorillonite, laponite, organo-montmorillonite and mixtures thereof (column 6, lines 20-41), wherein said laminar mineral are oriented within the first coating layer in a generally parallel three-dimensional and overlapping spaced relationship (column 4, line 63 through column 5, line 5, column 6, lines 20-41), and wherein said organic binder is selected from water-soluble or water dispersible organic resins and mixtures thereof, and optionally a coating, wherein the binder is a polyester, acrylic resins, polyolefins, polysaccharides, polyvinyl alcohol (column 8, line 64 through column 10, line 22) (applies to instant claims 1-2).

Kotani discloses wherein the substrate is biaxially oriented PET bottle (column 16, lines 1-46 and column 17, lines 10-16), wherein the mineral has an aspect ratio greater than 150 (column 5, lines 6-23) (applies to instant claims 6-8).

Kotani fails to disclose a melamine formaldehyde binder and wherein the laminar mineral material comprise platelets.

Barnes discloses a melamine formaldehyde binder containing clay and wherein the laminar mineral material comprise montmorillonite platelets (column 2, lines 15-68) for the purpose of providing improved barrier properties (applies to instant claims 1 and 6).

Art Unit: 1772

Therefore it would have been obvious to one of ordinary skill in the art to have provided a melamine formaldehyde binder containing clay and wherein the laminar mineral material comprise montmorillonite platelets in the barrier coatings of Kotani in order to provide improved barrier properties.

Kotani discloses wherein the substrate is biaxially oriented PET (column 16, lines 1-46), wherein the binder comprises acrylic polymers (column 8, line 64 through column 10, line 22) (applies to instant claims 4-5).

Kotani fails to disclose that the acrylic polymers has a molecular weight of between 3,000 to 50,000.

Harrison discloses acrylic polymers have a molecular weight of between 3,000 to 50,000 (page 6, lines 3-5) in a binder containing a clay for the purpose of improved barrier properties (applies to instant claim 4).

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided a binder wherein the acrylic polymers have a molecular weight of between 3,000 to 50,000 in the barrier coating of Kotani in order to provide improved barrier properties as taught or suggested by Harrison.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Miggins whose telephone number is 571-272-1494. The examiner can normally be reached on 1:00-10:00pm.

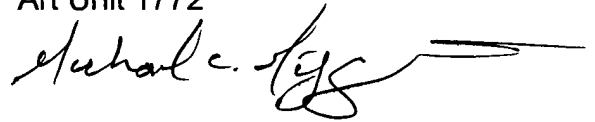
Art. Unit: 1772

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MCM  
January 3, 2006

Michael C. Miggins  
Primary Examiner  
Art Unit 1772

A handwritten signature in black ink, appearing to read "Michael C. Miggins", followed by a horizontal line.